



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D117-762-041
Job Sheet 198655



Part No: D117-762-041

Job Qty: 1 pcs

Part Name: Replacement Skidtube



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/1/19

Job Tracking No:

Due Date: 9/9/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG D3582 REV E IPP Rev:A 07.06.11 New Issue EC IPP Rev:B 08-02-22 change to revA as per dwg DD
verF by:EC IPP REV:C 15.06.11 AS PER CHG002 DD VERF:JLM IPP REV:D 16.02.05 DWG REV:C (ecn16-
514) DD VERF:JLM IPP REV:E 17.01.17 as per dwg REV.D DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
130	Skidtubes - 1	1 pcs	9/9/19		0.00	3.30	Skidtubes - 1		
							Skidtubes - 2		
							Skidtubes - 3		
							Skidtubes - 4		
							Skidtubes - 5		
							Skidtubes - 6		
							Skidtubes - 7		
140	Skidtubes - 2 - B4B	1 pcs	9/9/19		0.00	3.30	Skidtubes - 1 - B4B		
							Skidtubes - 2 - B4B		
							Skidtubes - 3 - B4B		
							Skidtubes - 4 - B4B		
							Skidtubes - 5 - B4B		
							Skidtubes - 6 - B4B		
							Skidtubes - 7 - B4B		
150	QC 10	1 pcs	9/9/19		0.00	0.00	QC 10 - 10		AUG 23 2019
							QC 10 - 18		
							QC 10 - 24		
							QC 10 - 43		
							QC 10 - 50		
							QC 10 - 58		
							QC 10 - 9		
160	QC 5	1 pcs	9/9/19		0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		

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						QC 5 - 49	
						QC 5 - 51	
						QC 5 - 58	
						QC 5 - 68	AUG 23 2019 ^{DAS} 68
						QC 5 - 9	9-89
						QC 5 - 50	
						QC 5 - 30	
						QC 5 - 40	
						QC 5 - 61	
						QC 5 - 81	
170 Handfinish - 1-1 Chemical- B4B	1 pcs	9/9/19	0.00	0.97		Handfinish - 1 - 1 - B4B	
						Handfinish - 1 - 2 - B4B	
						Handfinish - 1 - 3 - B4B	★ AUG 27 2019
						Handfinish - 1 - 4 - B4B	
						Handfinish - 1 - 5 - B4B	
						Handfinish - 1 - 6 - B4B	
						Handfinish - 1 - 7 - B4B	
						Handfinish - 1 - 8 - B4B	
						Handfinish - 1 - 9 - B4B	
						Handfinish - 1 - 10 - B4B	
						Handfinish - 1 - 11 - B4B	
						Handfinish - 1 - 12 - B4B	
						Handfinish - 1 - 13 - B4B	
						Handfinish - 1 - 14 - B4B	
						Handfinish - 1 - 15 - B4B	
						Handfinish - 1 - 16 - B4B	
						Handfinish - 1 - 17 - B4B	
						Handfinish - 1 - 18 - B4B	
						Handfinish - 1 - 19 - B4B	
						Handfinish - 1 - 20 - B4B	
						Handfinish - 1 - 21 - B4B	
						Handfinish - 1 - 22 - B4B	
180 QC 7	1 pcs	9/9/19	0.00	0.00		QC 7 - 10	
						QC 7 - 13	
						QC 7 - 14	
						QC 7 - 15	
						QC 7 - 17	
						QC 7 - 18	BF
						QC 7 - 19	
						QC 7 - 2	
						QC 7 - 28	
						QC 7 - 3	
						QC 7 - 30	
						QC 7 - 34	
						QC 7 - 36	
						QC 7 - 37	
						QC 7 - 41	
						QC 7 - 47	

					QC 7 - 48	
					QC 7 - 51	
					QC 7 - 58	
					QC 7 - 59	
					QC 7 - 60	
					QC 7 - 9	
					QC 7 - 68	
					QC 7 - 50	
					QC 7 - 67	
					QC 7 - 40	
					QC 7 - 24	
					QC 7 - 43	
					QC 7 - 61	
					QC 7 - 81	
190	Skidtubes - 3 - B4B	1 pcs	9/9/19	0.00 3.33	Skidtubes - 1 - B4B	DD
					Skidtubes - 2 - B4B	
					Skidtubes - 3 - B4B	
					Skidtubes - 4 - B4B	
					Skidtubes - 5 - B4B	
					Skidtubes - 6 - B4B	
					Skidtubes - 7 - B4B	
200	QC 10	1 pcs	9/9/19	0.00 0.00	QC 10 - 10	
					QC 10 - 18	
					QC 10 - 24	
					QC 10 - 43	
					QC 10 - 50	SEP 03 2019 DAS 50 9-89
					QC 10 - 58	
					QC 10 - 9	
210	QC 5	1 pcs	9/9/19	0.00 0.00	QC 5 - 10	
					QC 5 - 12	
					QC 5 - 17	
					QC 5 - 18	
					QC 5 - 19	
					QC 5 - 22	
					QC 5 - 24	
					QC 5 - 3	
					QC 5 - 43	
					QC 5 - 49	
					QC 5 - 51	
					QC 5 - 58	
					QC 5 - 68	SEP 03 2019 DAS 58 9-89
					QC 5 - 9	
					QC 5 - 50	
					QC 5 - 30	
					QC 5 - 40	
					QC 5 - 61	
					QC 5 - 81	
215	Handfinish - 2-1 Pressure- B4B	1 pcs	9/9/19	0.00 0.97	Handfinish - 2 - 1 - B4B	SEP 04 2019
					Handfinish - 2 - 2 - B4B	
					Handfinish - 2 - 3 - B4B	
					Handfinish - 2 - 4 - B4B	
220	Powdercoat - 1 White Gl(A)- B4B	1 pcs	9/9/19	0.00 0.26	Powdercoat - 1 - B4B	
					Powdercoat - 2 - B4B	
					Powdercoat - 3 - B4B	BR 19-9-14
					Powdercoat - 4 - B4B	
230	QC 3	1 pcs	9/9/19	0.00 0.00	QC 3 - 10	
					QC 3 - 13	
					QC 3 - 15	
					QC 3 - 17	

				QC 3 - 18	
				QC 3 - 2	
				QC 3 - 28	
				QC 3 - 3	
				QC 3 - 30	
				QC 3 - 34	
				QC 3 - 36	
				QC 3 - 41	
				QC 3 - 51	
				QC 3 - 58	
				QC 3 - 59	BEB 19-09-05
				QC 3 - 68	
				QC 3 - 9	
				QC 3 - 40	
				QC 3 - 19	
				QC 3 - 43	
				QC 3 - 24	
				QC 3 - 61	
				QC 3 - 81	
250	Handfinish - 4-1-Assembly-B4B	1 pcs	9/9/19	0.00 0.97	Handfinish - 4 - 1 - B4B
					Handfinish - 4 - 10 - B4B
					Handfinish - 4 - 11 - B4B
					Handfinish - 4 - 12 - B4B
					Handfinish - 4 - 13 - B4B
					Handfinish - 4 - 14 - B4B
					Handfinish - 4 - 15 - B4B
					Handfinish - 4 - 2 - B4B
					Handfinish - 4 - 3 - B4B
					Handfinish - 4 - 4 - B4B
					Handfinish - 4 - 5 - B4B
					Handfinish - 4 - 6 - B4B
					Handfinish - 4 - 7 - B4B
					Handfinish - 4 - 8 - B4B
					Handfinish - 4 - 9 - B4B
260	QC 5	1 pcs	9/9/19	0.00 0.00	QC 5 - 10
					QC 5 - 12
					QC 5 - 17
					QC 5 - 18
					QC 5 - 19
					QC 5 - 22
					QC 5 - 24
					QC 5 - 3
					QC 5 - 43
					QC 5 - 49
					QC 5 - 51
					QC 5 - 58
					QC 5 - 68
					QC 5 - 9
					QC 5 - 50
					QC 5 - 30
					QC 5 - 40
					QC 5 - 61
					QC 5 - 81
270	Packaging 3-1 - Stock - B4B	1	9/9/19	0.00 0.00	Packaging 3 - 1 - B4B

DAS
69
9-89

BEB 19-09-05

DAS

40

SEP 06 2019 9-89

pcs				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
275 DC - 1 - B4B	1	9/9/19	0.00 0.00	DC - 1 - B4B	
	pcs			DC - 2 - B4B	
280 QC 21 - FG	1	9/9/19	0.00 0.00	QC 21 - FG - 21	
	pcs			QC 21 - FG - 70	
				QC 21 - SA - 53	

Part Op 130 - Skid tubes-1 (Skid tubes) 1-Cut Aft end using DT8185 2-Deburr ends 3-Drill Aft Cap holes using DT8678 *** OPEN
 Descriptions: AFT CAP HOLE TO .187" *** 4-Locate DT 8973 from aft cap holes & Drill Ground wire hole on top of Tube. 5-Install 3/16 cleco in Ground wire hole, then drill all X-Bolt holes using 3/16" drill. 6-Drill pilot holes for wearplates using DT8900 7-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3582. 8-Drill holes for D5520-1 doubler using DT10309 A & B, locating from 4th and 5th crossbolt holes from aft using .1875 clekos. Spot drill tube using #20 drill (note 10). Remove DT10309 B. Re-install DT 10309 A drill thru tube and doubler using #20 drill (note 10), cleco as you go. Remove .1875 clekos and open holes in tube and doubler to 0.750". Remove doublers and identify orientation. 9-Deburr doubler and doubler holes in skid tube. 10-Countersink doubler holes in skid tube as per Dwg, detail J and note 12 -Touch up alodine on D5520-1 doublers. 11- open ground wear holes to 0.391" as per section B-B 12-Open Aft Cap holes using .209" drill. 13-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size. 12-Do not open holes of section G-G to finishes size.

140 - Skid tubes-1 (Skid tubes) 1-Weld fwd cap D2964 per dwg D3582 and QSI 004 A/R AL ROD

Batch: 136789/13701 2-Grind flush

150 - QC10 (QC10- Inspect visual per QSI004- ground welds)

160 - QC5 (QC5- Inspect part completeness to step on W/O)

170 - HandFinish1 (Chemical Conversion Coat per QSI005 4.1)

180 - QC7-1 (QC7-Inspect Chemical Conversion Coat)

190 - Skid tubes-1 (Skid tubes) ***MASK OFF HOLES OF SECTION F-F (DO NOT C'SINK) 1-Open X-Bolt holes to finish size as per Dwg D3582, sections D-D, E-E, G-G as per Dwg. 2-Counter Sink X-BOLT holes as per Dwg D3582 D-D, E-E and G-G.***Do NOT countersink holes of section F-F). 3-Deburr and blow out chips from inside of tube, prep. tube for welding. 4-Install doublers using DT10309 B. Shave rivets as required. 5-Bond web as per Dwg D3582 & QSI 015 A/R 241 Sike Flex Batch: 5200625 Exp Date: 07/25/2020 6- Swage x-bolt spacer as per dwg and

Section F-F QSI002- 7-Weld x-bolt spacers as per Dwg D3582 section D-D, E-E and G-G. A/R AL ROD

Batch: 138989 8-Grind welds flush

200 - QC10 (QC10- Inspect visual per QSI004- ground welds)

210 - (QC5- Inspect part completeness to step on W/O)

215 - HandFinish2 (Pressure Wash per QSI005 4.3/ Clean and remove all markings) Touch-up alodine as per QSI

220 - Powdercoat1 (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum) START TIME _____ OVEN TEMPERATURE: _____

FINISH TIME: _____

230 - (QC3- Inspect Part Finish)

250 - HandFinish4 (Assemble as per dwg) 1-Inspect for Foreign objects 2-Install Aft cap as per Dwg D3582, Detail "C"

A/R 241 Sika Flex Batch: 8200625 Exp Date: 20/07 3-Install Wearplates as per Dwg D3582 ,

Note:Install Bolt and washer on Ground Wire inserts on top of tube see section D-D of dwg D3582 *****Do not install

bolts where indicated on Dwg(Note #6)***** 4- Wing Walk as per Dwg D3582 and QSI 005 4.4 5146104

260 - (QC5- Inspect part completeness to step on W/O)

270 - Identify and pack for shipping as per PPP D117-762-041 Location :FG081

275 - (Document Control) Photocopy bluefile & type labels per PPP D117-762-041 CHG003

280 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D3582-1-BENT	Skidtube Assembly BK117	1 pcs (1 ea)	130-Skidtubes - 1	5171127
D5520-1	Doubler	2 pcs (2 ea)	130-Skidtubes - 1	5172440
D2964	Cap	1 pcs (1 ea)	140-Skidtubes - 2 - B4B	5146305
CR3212-5-05	Rivet	68 pcs (68 ea)	190-Skidtubes - 3 - B4B	5157307
D2971	Cross Bolt Spacer	1 pcs (1 ea)	190-Skidtubes - 3 - B4B	5097024
D3584-1	Web	1 pcs (1 ea)	190-Skidtubes - 3 - B4B	5174177
D3662-1	Crossbolt Spacer	3 pcs (3 ea)	190-Skidtubes - 3 - B4B	5173644
D3662-3	Crossbolt Spacer	1 pcs (1 ea)	190-Skidtubes - 3 - B4B	F816006
D5304-1	Crossbolt Spacer	2 pcs (2 ea)	190-Skidtubes - 3 - B4B	5148275
ALS4-1032-130	Rivnut	36 Ea (36 ea)	250-Handfinish - 4-1-Assembly-B4B	5057257
ALS4-428-165	Insert	2 Ea (2 ea)	250-Handfinish - 4-1-Assembly-B4B	5147561
AN3-5A	Bolt	2 Ea (2 ea)	250-Handfinish - 4-1-Assembly-B4B	5149158
AN3C4A	Bolt	28 Ea (28 ea)	250-Handfinish - 4-1-Assembly-B4B	5209067
AN4-4A	Bolt	2 Ea (2 ea)	250-Handfinish - 4-1-Assembly-B4B	5045482
D2965	Cap	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5172981
D3508-11	Wearplate Aft Center	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5172983
D3508-13	Wearplate Aft	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5148273
D3508-3	Wearplate Fwd Center	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5145470
D3508-9	Wearplate Fwd	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5177366
D3558-11	Gasket Aft Center	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5177368
D3558-13	Gasket Aft	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5177344
D3558-3	Gasket Center Fwd	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5177339
D3558-9	Gasket Fwd	1 pcs (1 ea)	250-Handfinish - 4-1-Assembly-B4B	5193136
NAS1149C0332R	Washer (AN960C10L)	28 Ea (28 ea)	250-Handfinish - 4-1-Assembly-B4B	5178378
NAS1149D0332J	Washer	2 Ea (2 ea)	250-Handfinish - 4-1-Assembly-B4B	FM131511
NAS1149D0416J	Washer	2 Ea (2 ea)	250-Handfinish - 4-1-Assembly-B4B	

M. U. 011770

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
130-Skiddtubes - 1	D3582-1-BENT	1	4	0
	D5520-1	2	22	0
140-Skiddtubes - 2 - B4B	D2964	1	28	0
190-Skiddtubes - 3 - B4B	CR3212-5-05	68	670	0
	D2971	1	17	0
	D3584-1	1	10	0
	D3662-1	3	31	0
	D3662-3	1	40	0
	D5304-1	2	17	0
	ALS4-1032-130	36	6,994	0
250-Handfinish - 4-1-Assembly-B4B	ALS4-428-165	2	78	0
	AN3-5A	2	86	0
	AN3C4A	28	1,299	0
	AN4-4A	2	59	0
	D2965	1	55	0
	D3508-11	1	16	0
	D3508-13	1	15	0
	D3508-3	1	19	0
	D3508-9	1	16	0
	D3558-11	1	5	0
	D3558-13	1	7	0
	D3558-3	1	5	0
	D3558-9	1	5	0
	NAS1149C0332R	28	3,616	0
	NAS1149D0332J	2	2,549	0
	NAS1149D0416J	2	1,827	0
Part Specifications				
Specifications could not be found.				

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ITEM	Qty -041	Part Number	Description
1	X	D3692-041	SKIDTUBE ASSEMBLY
2	1	D2802-150	EXTRUSION
3	1	D2864	CAP
4	1	D2865	CAP
5	1	D2971	CROSS BOLT SPACER
6	1	D3508-3	WEARPLATE
7	1	D3508-8	WEARPLATE
8	1	D3508-11	WEARPLATE
9	1	D3508-13	WEARPLATE
10	1	D3558-3	GASKET
11	1	D3558-8	GASKET
12	1	D3558-11	GASKET
13	1	D3558-13	GASKET
14	3	D3584-1	WEB
15	1	D3692-1	CROSS BOLT SPACER
16	1	D3692-3	CROSS BOLT SPACER
17	2	D5520-1	DOUBLER
18	28	AN3CA	BOLT
19	2	AN3-5A	BOLT
20	2	AN4-4A	BOLT
21	28	NAS114800332R	WASHER (AN800G10L)
22	2	NAS114800332J	WASHER (AN800J10L)
23	2	NAS114800418J	WASHER (AN800J1418L)
24	38	AELS-1032-130	INSERT
25	2	AL57-428-168	INSERT
26	88	CR3212-5-05	CSK RIVET, CHERRY MAX

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: CHEMICAL CONVERSION COAT PER OSI 005 4.1 PRIOR TO INSERTING D3594-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART OSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART OSI 005 4.4
 - 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 16.2 lbs
 - 8) WELDING: PER DART OSI 004.
 - 9) INSERT D3594-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/281 ADHESIVE PER DART OSI 015 AFTER BENDING.
 - 10) USE DART DRILL TEMPLATE D7800 TO LOCATE AND DRILL Ø0.287 HOLES (38 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (38 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/281.
 - 11) DO NOT INSTALL AN3CA BOLTS AND NAS114800332R WASHERS IN INDICATED LOCATIONS
 - 12) LOCATE CITY (34) HOLES ONTO THE SKIDTUBE PER D5520-1 DOUBLER AND DRILL Ø0.181 THRU SKIDTUBE AND DOUBLER USING DT10308. COUNTERSINK Ø0.288 x 100° (34 PL) PER DOUBLER AND INSTALL EACH D5520-1 DOUBLER USING QTY (34) CR3212-5-05 CSK RIVETS.

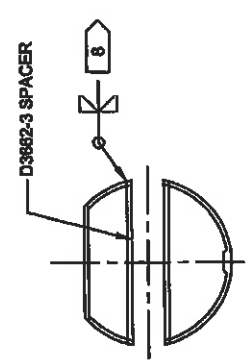
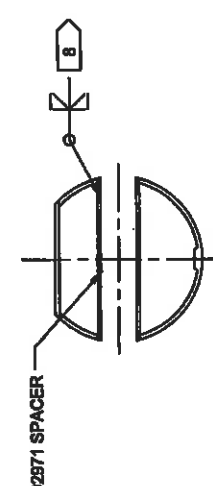
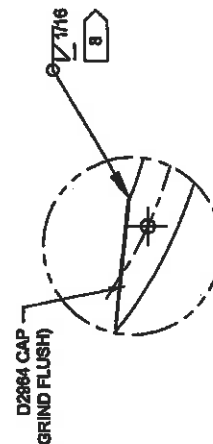
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2017-08-11
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 198655 MGS
19-08-01

E	MOVE VIEWS FROM SHT 1 TO SHT 2. ADD ITEMS 17 & 26 AND NOTE 12-13. Ø0.187 HOLE WAS Ø0.78. ADD SHT 3. ADD DETAIL J. SECTION F-F ADD D5520-1. SCALE ON VIEWS WAS 3X.	AJS	17.05.27
D	D3504-1 WAS D2873. REVISE BOM & SECTION F-F & SECTION NOTES (ZN B7-3, AS-3). REF NCR16-4180.	RF	17.01.09
C	D3482 PLUG ASSEMBLIES REMOVED. REFORMAT NOTES SHT 1.	AP	16.11.02
B	28.88 WAS 29.87 (ZN C2-1). INCORPORATED DEO D3552-A-1 (ZN DE-1). FORMAT TO CURRENT STD.	RF	16.02.20
A	NEW ISSUE	PH	07.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	AJS		
CHECKED			
MFG. APPR.	DJ		
APPROVED			
DE APPR.			
DATE	17.03.27		

DART AEROSPACE USA, INC		REV. E
EUGENE, OR		SHEET 1 OF 4
DRAWING NO.	D3582	SCALE
TITLE	BK 117 SKIDTUBE ASSEMBLY	NTS
COPYRIGHT © 2007 BY DART AEROSPACE USA, INC		
THIS DOCUMENT IS UNCLASSIFIED AND CONTAINS NO INFORMATION THAT IS UNCLASSIFIED BY THE NATIONAL ARCHIVES AND RECORDS ADMINISTRATION		

1 2 3 4 5 6 7 8



DETAIL C
SCALE 4X

SECTION D-D
SCALE 4X

SECTION E-E
SCALE 4X

SECTION E-E NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

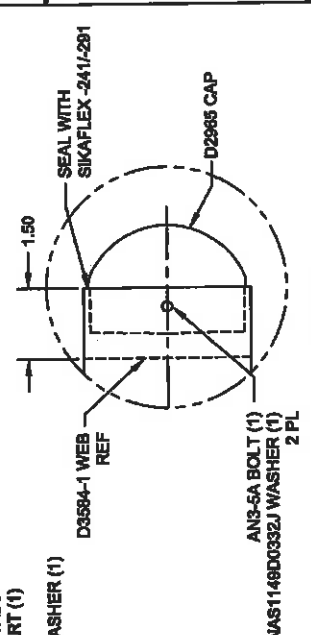
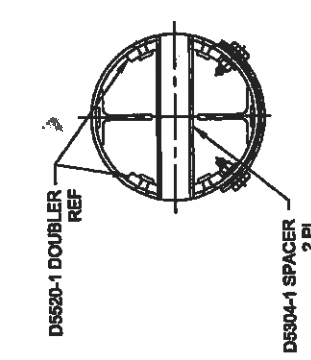
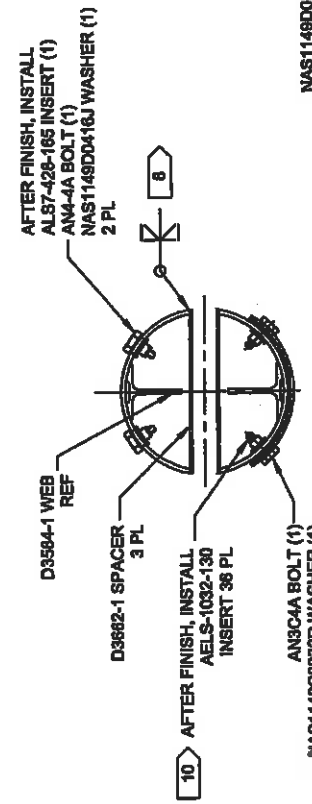
1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3862-3 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.672 DRILL TO REMOVE SPILL OVER

SECTION D-D NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2871 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.760 DRILL TO REMOVE SPILL OVER

SECTION D-D NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2871 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.760 DRILL TO REMOVE SPILL OVER



SECTION F-F
SCALE 4X

SECTION G-G
SCALE 4X

DETAIL H
SCALE 4X

SECTION F-F NOTES
AFTER BENDING AND DRILLING ASSY
PERFORM THE FOLLOWING:

1. INSERT D5304-1 SPACER
2. SWAGE TO Ø0.565 +0.005/-0.000 X 1.0
3. OPEN THRU HOLE TO Ø0.625
4. GRIND FLUSH

SECTION G-G NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3862-1 SPACER (3 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.515 DRILL TO REMOVE SPILL OVER

SECTION G-G NOTES
AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D3862-1 SPACER (3 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.515 DRILL TO REMOVE SPILL OVER

DESIGN	PH	DART AEROSPACE USA, INC		
DRAWN	ALIS	EUGENE, OR		
CHECKED	<i>MS</i>	DRAWING NO.	REV. E	
INFO. APPR.	<i>MS</i>	D3582	SHEET 3 OF 4	
APPROVED	<i>MS</i>	TITLE	SCALE	
DE APPR.	<i>MS</i>	BK 117 SKIDTUBE ASSEMBLY	NTS	
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N 2017-08-11

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Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

DISPOSITION		DEPARTMENT/PROCESS			
Job: _____	Rework ☐	Cross tube ☐	Eng. (Non-AW) ☐	Engineering ☐	
Part No. _____	Scrap ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Water Jet ☐	
	Use-as-is ☐	Finishing ☐	Rec/Store/Packaging ☐	Supplier ☐	
				Quality ☐	
Date: _____	Sequence #: _____	QTY Affected: _____			
Description Work Order Deviation		Disposition			
Root Cause		FAULT CATEGORY			
Operator ☐	Pressure/Forced ☐	Contamination ☐	Power Loss/Surge ☐	Positioned Wrong ☐	
Manufacturing Process ☐	Bending ☐	Misaligned/off center ☐	Folio/Program ☐	Outside Tolerance ☐	
Equip/Tooling ☐	Crushing ☐	BOM/Route ☐	Grain Direction ☐	Drawing ☐	
Handling/Preservation ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Finish ☐	
Material ☐	Crimp/Kink/Ripple/Wave/Twist ☐	Incomplete/Unclear Instructions ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	
Product Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Out of Sequence ☐	Misread ☐	
Process Improvement ☐	Mislabeled ☐	Fit/Function ☐	Off-set/Set-up ☐		
Human Factors ☐	Other/Details: _____				
		Completed By _____			
		Lead hand / Supervisor _____			
		QC / QA Coordinator _____			
		MRB (QS1042) _____			